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Iron RECORDED

Date of Application, 4th Apr., 1896

Complete Specification Left, 4th Jan., 1897—Accepted, 3rd Apr., 1897

DUPLICATE

PROVISIONAL SPECIFICATION.

An Invention for the Preparation of Tonic Foods.

HERBERT EDWARDS WRIGHT Southend House Wickwar Gloucestershire Brewer do hereby declare the nature of this invention to be as follows :—

The addition or employment of salts of iron, particularly phosphate of iron and of phosphates of lime, soda or potash either separately or conjointly in the preparation for sale of solid & semi-solid articles of food particularly of biscuits cakes & chocolate.

Dated this 3rd day of April 1896.

HERBERT EDWARDS WRIGHT.

COMPLETE SPECIFICATION.

An Invention for the Preparation of Tonic Foods.

HERBERT EDWARDS WRIGHT Southend House, Wickwar Gloucestershire M.A. (Trin. Coll. Camb.), Brewer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

I take an iron salt by preference iron tartarate, calcium lactophosphate & sodium & potassium phosphates all soluble in such proportions that the iron base shall be equal in quantity to each of the other bases but usually in the proportion of 2 : 1, such proportion however being variable to any extent which may seem desirable from time to time, & with the iron salt I thoroughly incorporate a portion of pepsin or papaïn, & these soluble salts together with the pepsin or papaïn I incorporate either with the paste of the cacao-bean used in the manufacture therefrom of chocolate & form the combined matters into cakes tablets or any other convenient form or I incorporate them with already prepared chocolate, reforming the said combined matters into tablets or cakes which, if necessary, shall be dried by gentle heat or over calcic chloride sulphuric acid or otherwise, or made into preparations more or less resembling chocolate creams or caramels. Or I incorporate the salts & the pepsin or papaïn with the pulp of fruit in the dried or natural state such pulp to include the softer parts of tamarinds or figs & I use the compound in combination either with chocolate or some other edible matter or alone. Or I incorporate the salts with the pepsin or papaïn with malt-extract reduced by evaporation to a semi-solid consistency, or I treat the malt extract with the pepsin or papaïn at some earlier stage & I use the mixture either alone or in combination with chocolate or any other edible substances. Or I incorporate the above salts either with or without pepsin or papaïn with flour either of wheat or of any other cereal or of malt, or with any other of the materials used in the manufacture of biscuits or cakes or with any substances for instance dextrin or sugar or white of egg usable as a glaze or with chocolate for combination with such biscuits either as an integral part or otherwise.

[*Price* 8*d*.]

And I claim that the specifying of undissolved but soluble salts as used in any of the above preparations may be taken to include the use of them in solution & that, although iron tartarate & calcium lactophosphate are specially mentioned as used, I may be allowed for the purposes set forth in this specification the exclusive use of all other soluble salts of iron or of the reduced iron of the British Pharmacopæia or of any insoluble salts if due means be taken [α] to render them soluble or [β] to bring them into a state of potential solubility as for example in the first case [α] ferrous or ferric phosphate dissolved in an excess of citric acid such acid being either retained or precipitated as citrate of lime or the same salts dissolved in dilute hydrochloric acid with addition of citric acid, the HCl being afterwards neutralised with carbonate of soda with formation of sodium chloride or of calcic phosphate dissolved in phosphoric acid or a solution of any organic acid : & in the second case [β] the intimate admixture with such salt of such proportion of an organic acid as shall assure prompt assimilation by the digestive system.

And I further claim that the use of pepsin or papaïn as above indicated, important as it is & for which special protection is asked, may not be held essential in the sense that their omission shall justify any infringement of rights granted in pursuance of this application.

The quantities of the iron preparations or salts & of other salts preferably used in certain typical articles of food are—to such quantity of flour & other ingredients as may form a biscuit weighing 120 grains approximately, or to 180 grains of the prepared or powdered contents of the cacao bean, but to 90 grains of the said cacao powder if it be mixed with other edible matters named above, 10 grains of tartarated iron, 2 grains of reduced iron, 4 grains of iron phosphate, 2 grains of each or either of the phosphates of lime, soda or potash & ½ grain of pepsin or papaïn. But such quantities are variable to any extent that may seem from time to time desirable.

Having now particularly described & ascertained the nature of my said invention & in what manner the same is to be performed I declare that what I claim is

1. The use of salts of iron or reduced iron & phosphates of lime potash & soda in combination with solid or semi-solid articles of food.

2. The use of pepsin or papaïn in conjunction with salts or the named preparations of iron, soda, lime or potash.

Dated this Second day of January 1897.

HERBERT EDWARDS WRIGHT.

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